

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-186295

(43)Date of publication of application : 27.07.1993

(51)Int.Cl.

C30B 25/02

C30B 29/42

(21)Application number : 04-004194

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(22)Date of filing : 13.01.1992

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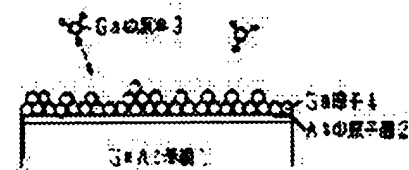
## (54) METHOD FOR GROWING CRYSTAL

## (57)Abstract:

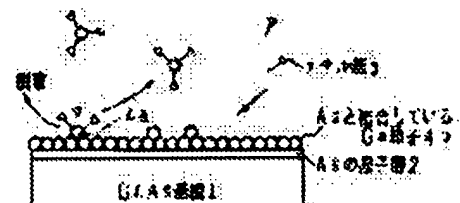
PURPOSE: To accurately form one atomic layer by depositing  $\geq$  one atomic layer of a constituent element layer of a compound to be grown on the surface of a substrate, supplying a specific substance to the surface and removing the constituent element unbonded to the substrate.

CONSTITUTION: A case of growing crystal of GaAs is explained. An atomic layer 2 of As is grown on a GaAs base 1, a raw material 3 of Ga is fed to the base and  $\geq$  one atomic layer of Ga atoms 4 is deposited on the As atomic layer 2. Then methyl group 5 to form a substance which is bonded to Ga and has weaker bond force than one between Ga and As is supplied to a growth face, brought into contact and reacted with the Ga atom 4a having deposited  $\geq$  one atomic layer and evaporated as methylated gallium. In the operation, since the Ga atom 4b of one atomic layer directly bonded to the atomic layer 2 of As has strong bond force to As, this Ga atom will not release from the surface even if the methyl group comes into contact with this Ga atom of one atomic layer.

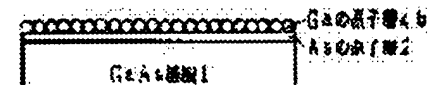
(A) 第1工程



(B) 第2工程



(C) 結果



## LEGAL STATUS

[Date of request for examination] 13.03.1998

[Date of sending the examiner's decision of rejection] 13.03.2001

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]